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ABSTRACT

Although the Japanese term "kyo-iku" is translated into English as "education," significant differences exist between the two terms. A new term, "ergonagy," has been advocated to help integrate the Japanese concept of kyo-iku and the Western concept of education. "Ergonagy" is formed from the Greek terms "ergon" (work) and "agogos" (lead). Ergonagy describes education that leads to or promotes an individual's occupational, vocational, and professional potential. Although ergonagy recognizes differences in academic studies and vocational applications and differences between pedagogy and andragogy, it also recognizes and emphasizes the synergy that exists between each set of concepts. Defined as the art and science of helping people learn to work, ergonagy supports a continual blending of academic and vocational education for improved work opportunities throughout individuals' lives, whether in one or several careers. The principles underlying the concept of ergonagy and the need for anergonomic perspective can be understood better by examining the evolution of Japan's human resource system and its similarities to and differences from the U.S. human resource development system. Because it subsumes andragogy and pedagogy, ergonagy can make international dialogue, research, and studies of kyo-iku and education clearer and more defined. (Contains 11 references.) (MN)

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ERGONAGY:

A NEW CONCEPT IN THE INTEGRATION OF *KYO-IKU* AND *EDUCATION*

(Presented 14 April, 1999, OISE, University of Toronto, Toronto, Canada at the annual Comparative and International Society (CIES) Conference)

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Ergonagy
A New Concept In The Integration Of *Kyo-Iku* And *Education*

Kazutoshi Tanaka, Ph.D. & Michael B. Evers, Ed.D.

ABSTRACT

Although the Japanese term *kyo-iku* is translated as *education* there are significant differences in the concepts and practices associated with each. These differences lead to problems in meaningful dialogue, research, and comparative studies. To help integrate these terms, a new concept, *ergonagy*, is advocated. Composed of the Greek words *ergon* (work) and *agogos* (leads), *ergonagy* describes education that leads to/promotes one's occupational, vocational, and professional potential. While *ergonagy* recognizes differences in academic studies and vocational applications, and differences between pedagogy and andragogy, it also recognizes and stresses the synergy that exists between these. Further, *ergonagy* supports a continual blending of these for improved work opportunities throughout one's life, whether in one or several careers. In essence, *ergonagy* is the art and science of helping people learn to work. As such it subsumes aspects of pedagogy and andragogy thus making dialogue, research, and studies *of kyo-iku* and *education* clearer and more defined.

ERGONAGY

A NEW CONCEPT IN THE INTEGRATION OF *KYO-IKU* AND *EDUCATION*

Kazutoshi Tanaka, Ph.D. and Michael B. Evers, Ed.D.

INTRODUCTION

Comparative studies of education and training in Japan and the United States have found that vocational training is considered lower in prestige than is general academic education. The esteem of vocational training appears even more depressed in Japan than it is in most Western countries.[1] Research has further revealed that education and training that leads to and enhances work opportunities is lacking both a clear definition and a clear concept for international dialogue, research, and scholarly studies.[2]

The purpose of this paper is, therefore, twofold. First, to clarify why the status of vocational training is low in Japan, and, second, to propose a new concept called *Ergonagy* which offers a clear definition and clear concepts of occupational, vocational, and professional education and training that can be used in international dialogue, research, and scholarly studies. This concept, *ergonagy*, is an important new concept in education for two reasons. Firstly, it integrates *kyo-iku* of Japan and *education* as it is defined in the United States. Secondly, it integrates the concepts and strategies of pedagogy and andragogy into education and training that focuses on occupational, vocational, and professional behaviors (knowledge, skills, abilities, and attitudes) without discriminating between childhood education and adult learning. Furthermore, *Ergonagy* has significant potential for solving universal problems encountered worldwide in the realm of education.

DEFINITIONS

To better understand the differences in *kyo-iku* and *education* and to have a basis from which to begin to define *ergonagy* the following definitions are offered.

a. *education* – the 1997 edition of "Webster's New World College Dictionary" provides the following definitions of education.

1. the process of training and developing the knowledge, skill, mind, character, etc., especially by formal schooling; teaching; training
2. knowledge, ability, etc. thus developed
3. a) formal schooling at an institution of learning b) a stage of this {a high school education}
4. systematic study of the methods and theories of teaching and learning.

The 1973 edition of "The Random House Dictionary of the English Language" offers the following definitions of education.

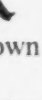
1. to develop the faculties and powers of (a person) by teaching, instruction, or schooling
2. to qualify by instruction or training for a particular calling, practice, etc.; train: to educate someone for law
3. to provide education for; send to school
4. to develop or train (the ear, taste, etc.)

b. *Kyo-iku* - All known "English-to-Japanese" dictionaries translate *education* as *kyo-iku* and all known "Japanese-to-English" dictionaries translate *kyo-iku* as *education*. However, this is a very simple, superficial, and perhaps lazy translation. A renowned Japanese dictionary, "KOJIEN" (1998 edition) defines *kyo-iku* as follows.

1. to teach and raise (bring up)
2. to provide knowledge (intellectual = mental faculties) to a person by teaching
3. the act of converting a person into a desirable individual according to the intentions of others and thereby realizing the value of the person

Through these definitions it becomes evident that the Japanese concept *kyo-iku* is indeed different from the Western concept *education*. Firstly, the word *education* conveys intent to develop the existing innate faculties and intellectual powers of an

individual through teaching, instructing, or schooling; the associated word "educe" and its meanings are present in *education*. However, *kyo-iku* conveys intent to impose teaching towards conformity to an external force; it is designed to mold individuals' character according to standards established by governmental or social authorities. Secondly, *education* includes within its meanings those concepts associated with *training, skill,* and *calling*. These concepts not present of *kyo-iku*.

An analysis of the oldest known form of writing to influence Japan's systems of written communication, characters used since the 15th Century BC to convey thoughts and meanings, can assist in gaining a more in depth understanding of concepts associated with *kyo-iku*. *Kyo* is written in Chinese Characters as which originated from the hieroglyphic . The left side of the character is shown as . The upper portion represents a building with an ornamental crossbeam gable such as those used on a Shinto shrine. The lower portion of the character  signifies a child. The left side of the character, therefore, indicates a teacher and pupil in a temple or school. This is consistent with known history where temples were, in ancient times, learning centers and schools for children. The right side of the character "KYO" is written as and represents a pointer. "IKU" is written in Chinese characters as or in hieroglyphs. The upper part of the hieroglyphic character indicates a birthing baby and the lower part of the character means "flesh" or "to nurture by serving meat." Thus, one of the significant differences between *education* and *kyo-iku* is that *education* includes the concept of to develop, or to educe, the potential of the learner, but *kyo-iku* does not include these concepts.

What is missing from *kyo-iku* is foremost the concept of *develop*. The 1998 edition of "Webster's Essential English Dictionary" (Britannica Japan, Inc.), which offers English definitions with Japanese Translation, provides "to bring out the possibilities of: IMPROVE" as one of its definitions of *develop*. Japan structures its system so as to impose teacher directed *kyo-iku* that promotes uniformity rather than development.

BACKGROUND

Having presented some definitions as a basis for common understanding there are two points regarding *education* in Japan that need to be emphasized. Firstly, as already mentioned, part of the Chinese character for *kyo* indicates a pointer and signifies that a teacher employs an instrument or strategy of direction and correction when teaching. This character, however, misrepresents the original concepts about teaching and learning because Japanese teachers did not use pointers in ancient times. The "pointer" portion of the character has been added in relatively recent years.

Louis Frois, a Portuguese missionary, entered Japan in 1563. While there he wrote about his observations of Japan in a treatise entitled "Tratado em que se contem muito susintae abreviadamente alguma contradicoes e diferencas de custumes antre a gente de Europa e esta provincis de Japo." (This is loosely translated as "A brief summary of observations on the contradictions and differences in customs of the people of Europe and those of the Province of Japan") (1585). In chapter three of this writing he stated, "We usually lash our sons for a scolding, but the Japanese hardly ever do. They just give their sons mere words for scoldings."[3] The situation of *kyo-iku* seems to have reversed itself in the most recent few hundred years.

The second point is based upon an alternative to *kyo-iku* that was presented by Yukichi Fukuzawa (1834-1901). Fukuzawa was an educator who took a premier stand in helping introduce Western civilization to Japan. He established a private school in 1858, based upon Western educational concepts, which became the present prestigious Keio University. As an educator he was deeply concerned and anxious about the situation of grounding Japan's education system on the concept of *kyo-iku*. He presented his arguments in writing in 1889 that the concept *hatsu-iku* was more appropriate than *kyo-iku* for a developing nation.[4] Despite his sound arguments for *hatsu-iku*, his ideas were not accepted even after World War II when democracy was further introduced. *Hatsu* in Japanese means "to develop."

A Japanese businessman, who listens frequently to an English language broadcast on his radio in order to learn and improve his English, noted a particular nuance to concepts regarding education as it is discussed by Westerners. During a broadcast about *education* he hardly understood any of the concepts being discussed. Later, when the definition of *education*, as stated in "Webster's Dictionary," was presented to him, the businessman was able to understand its meaning and grasp more of what he had heard during the radio broadcast. With his understanding of *kyo-iku* he had tried to translate Western concepts of *education* but the translation had failed. Despite the tendency to define *education* as *kyo-iku* and *kyo-iku* as *education*, it must be recognized that *kyo-iku* and *education* are definitely different in their concepts and in their practices. It is of little wonder then that dialogue, research and studies that contrast the United States and Japan's systems of education often result in confusion and misunderstanding.

PROBLEM

In 1998, at a United Nations Conference on Children's Rights, Japan's educators and government leaders were encouraged to take measures to improve *kyo-iku*. Schools in Japan are facing mounting problems with teacher abuse, bullying, truancy, absenteeism, and a general decline in classroom discipline.[5] Keen competition among students and parents who press their children to excel on entrance examinations for high school, college, and university, have placed a tremendous amount of stress on students, parents, and teachers alike. Yet none of these examinations, or the schooling that precedes it, prepares students to become productive workers. Work related education and training in Japan comes in the workplace, not in the schools.

These problems appear to have resulted from the fact that the system of *kyo-iku* has made light of, or has indeed neglected, occupational and vocational education and training. In other words, there is a lack of *education* in *kyo-iku*. The system of *kyo-iku* in Japan has ignored the fact that students will exit school and enter the world of work. In general, Japan overestimates the capabilities of its system of *kyo-iku*. *Common kyo-iku* (that which incorporates social as well as school education) only confers special advantage for those who seek to excel on entrance examinations and neglects the individual student's needs, desires, personality, creativity, and character. Japan's *kyo-iku* system has become a cram-for-the-test form of standardized selection and culling process.[6] It is, therefore, quite natural for students to postpone and be unwilling to consider entering the world of work.

In "The Japanese Today - Change and Continuity" Edwin O. Reischauer states, "the close link between academic achievement and success in life is taken for granted by everyone" (p. 191). He further offers, "(t)he importance of preparing for entrance examinations helps account for the seriousness with which education is taken in Japan and for its high levels of excellence, but it is also responsible for some of its chief flaws" (p. 192).[7] The close link between examination performance, school attended, and potential employer is taken for granted by most Japanese because entrance examinations sort students into classes and groupings that help determine their lifelong employment affiliation.[8] *Kyo-iku*, rather than developing people, locks them into a structured career grid that is founded upon organization affiliation rather than occupational aptitude.

The fundamental problems associated with *kyo-iku* have been latently caused by perspectives taken regarding its role in the modernization of Japan. *Kyo-iku* did not, and does not, have an aim of individual independence, but rather propagates utilitarianism for the state with learning being seen as property and capital for personal advancement. This perspective is a primary cause for problems existing in Japan's system of *kyo-iku*. Initially, the people of Japan did not accept the system of *school kyo-iku*. They in fact opposed it. However, once it became established in governmental bureaucracy and gradually penetrated society, a system of centrally directed teaching became the norm. Today, *kyo-iku* is the root of the problems that beset Japan's educational system. Despite the democratization of Japan after World War II, these problems remain unresolved. Part of the problem is as a direct result of the fact that members of the Ministry of Education who served before and during the war remained in position after the war. Therefore, pre-war *kyo-iku* was perpetuated after the war.

This led to problems in democratizing the system of *kyo-iku*. An example of one basic problem can be found within Japan's Post-War Constitution. Following the war Japan was democratized and a constitution enacted. Article 26 of the constitution speaks clearly to the right to education by saying, "All people shall have the right to receive an equal education correspondent to their ability, as provided by law."[9] The underlined portion of the article was changed to read as it does today by Japanese intellectuals. This was not the wording of the original draft of the constitution that was proposed by the occupying General Headquarters (GHQ) of General Douglas McArthur. We find within this article in the words "to receive" (rather than "to pursue") a strong Japanese perspective of *kyo-iku* (imposed and directed information) rather than a Western perspective of *education* (the educing and developing of talents and skills).

In 1947 Japan went further in its form of democratization of education when it adopted "The Fundamental Law of Education" or in reality a law of *kyo-iku*. The first portion of Article 7 of this law reads, "The state and local public corporations shall encourage home education [a more accurate translation is "social education"] and education carried out in places of work or elsewhere in society."[10] There are two expectations inferred in this statement. One is an expectation that the pre-war programs of *social kyo-iku*" (non-school-based) would continue and the other is an expectation that occupational-vocational training would be contained within the national-government-controlled *kyo-iku*. Special attention should be given to the fact that McArthur's GHQ reported the law to the United States Congress without translating Article 7 into English. No one has as of yet reported why GHQ did not translate Article 7. One explanation has been proposed that *education* reasonably includes *kyo-iku* and therefore any translation of

the article by GHQ would be like "carrying coal to New Castle" or an unnecessary redundancy. Another speculation purports that the term *social education* was frowned upon in the United States because it seemed to be too closely related to militarism and communism. The thinking is that if GHQ had translated this article the United States Congress would not have allowed it to pass into law.

One further important difference in the systems of Japan and most Western countries is that Japan does not employ apprenticeship programs as part of its public system of *kyo-iku*. This non-employment seems, ironically, to have been caused by GHQ's criticism of Japan's earlier apprenticeship programs, a criticism put forth in order to promote the democratization of Japan.

THE HUMAN RESOURCES DEVELOPMENT SYSTEM OF JAPAN

Professor Motosuke Munakata offers that the human resources development system (HRD) of Japan is like *kasane-mochi* (a stack of two rice cakes), with the lower rice-cake representing the common, or core, *kyo-iku* that is provided through schools. The top-most rice-cake represents vocational *kyo-iku*, which is presented in business and industry enterprises and public service agencies.[11] The HRD system of Japan consists of a combined set of both layers. Through this model of the HRD system one is able to have a better grasp of Japan's system of *kyo-iku*. In Japan, schools at all levels and business and industry enterprises rely on pedagogical methods of instruction. The basis, or substance, of pedagogy in Japan is not developmental education, but rather it is state-directed *kyo-iku*.

People who work within the academic circles of Japan realize that, despite talk of andragogy, self-directed adult education is not the norm. At best, what is called andragogy in Japan is in fact *social kyo-iku* or teacher-directed learning for leisure and community volunteerism. Both *school kyo-iku* and *social kyo-iku* are sub-sets of a government strategy to nationalize and socialize Japanese citizens toward national government values and purposes rather than global issues and individual needs. In this respect, *kyo-iku* is the employment of pedagogy in a strict form and thereby minimizes the principle that individuals are capable of creative pursuit of knowledge, skills, and abilities for occupation, vocation, and professional purposes.

Education, while differing in methods and strategies at various age levels and maturity levels, should not distinguish between children and adults when it comes to quality of learning opportunities made available. Nor should it minimize a significant purpose of learning, that is to be able to succeed in one's chosen field of work. In other words, education should promote learning that is applicable to one's chosen occupation, vocation, or profession. People must learn to work and will have to work and in order to survive and thrive.[12]

THE NEED FOR AN ERGONAGIC PERSPECTIVE

An international baseball game is possible between teams from the United States and Japan because the rules applied to baseball (*Yakyu* in Japanese) in the two countries are the same. In contrast, however, if two individuals, one from the United States and the other from Japan, discuss *education*, they may come to a point of deadlock or confusion because the "rules" (definitions and concepts) are different from those of *kyo-iku*.

It is important that Japan modify its perspective and move away from *kyo-iku*. The current internationally disparate and isolated view of Japan regarding *education* needs to become more consistent with a worldwide, or global, view. Changing Japanese perspectives regarding *kyo-iku* will not be easy due to its having been imbedded into the society for more than one hundred years, however, this needs to be done.

Ergonagy is proposed as a new concept in educational thinking that will help establish globally recognized principles regarding education for occupational, vocational, and professional education and training. *Ergonagy* incorporates the Greek terms of *ergon* (work) and *agogos* (to lead). *Ergon* + *agogos* ⇒ *ergonagogos* ⇒ *ergonagy*. *Ergonagy* is any learning activity which helps people learn to engage in a chosen occupation, or studies that prepare them to work, with the aim of becoming happy, productive, and successful workers. Therefore, *Ergonagy* is the art and science of helping people learn to work. As such it includes all education and training that is directly associated with occupational, vocational, and professional education and training.

The concepts associated with *ergonagy* are consistent with and support principles established in the "Universal Declaration of Human Rights" and the "International Covenant on Economic, Social, and Cultural Rights." These two widely accepted documents uphold and promote the right of individuals to occupational, vocational, and professional education and training as equal to the right to work, and place the right to such education and training above the right to a general education. Further, *ergonagy* supports and integrates the concepts, methods, and strategies that are associated with both pedagogy and andragogy. It is supportive of childhood as well as adult learning opportunities that are meaningful to an individual's becoming a fulfilled worker.

Ergonagy contains within its concepts and applications five primary merits. Firstly, *ergonagy* establishes a broader perspective of education and exceeds internationally disparate and isolationist perspectives such as those of *kyo-iku* which are sustained in Japan. Actual circumstances in education and training the world over are various and diverse. A concept that permits consistency of thought for dialogue and research and aids in establishing a common basis of understanding is needed. *Ergonagy*, by becoming a globally used term and commonly applied concept for occupational, vocational, and professional education and training, will provide a common foundation needed for meaningful international dialogue and research.

Secondly, *ergonagy* is beneficial when seen as the integration of pedagogy and andragogy. There is some question as to the relationship between these two concepts. In several countries these are recognized as two separate and uncomplimentary strategies of teaching and learning. Japan, and perhaps other nations, considers education and training that prepares and sustains workers as secondary to education and training that shapes individuals according to a national mold or cultural image. Education needs to facilitate learning as well as provide learning so that workers are prepared to engage in problem solving, decision-making, and metacognition.[13] *Ergonagy* promotes facilitated learning strategies. *Ergonagy* recognizes the need for both pedagogical and andragogical strategies to be applied for optimal learning.

Thirdly, *ergonagy* recognizes that the principles of life-long education are important but contends that life-long learning opportunities are not correctly regarded or applied in Japan, and perhaps in other countries as well. In Japan, life-long education is merely an extension of *social kyo-iku*, which is a nationalistic socialization process. As

such, life-long education is not included in *school kyo-iku* but is rather allocated as a responsibility of public and private service organizations and human resources development agencies and departments. Despite the fact that one spends more of his or her learning-life outside of school and in the realm of practical learning, with much of this learning devoted to knowledge and skills associated with work, *ergonogic* life-long learning needs and considerations are all too often overlooked.

Fourthly, the Government of Japan purports that the reason for Japan's economic growth has been a direct result of its system of *kyo-iku*. Perhaps governments of other countries, especially developing countries, may consider this to be the one vital factor in Japan's economic development. The fact that *kyo-iku* has contributed to Japan's economic growth is undeniable, however, the facts also show that a number of serious problems continue to plague Japan's society as a direct result of the k*yo-iku* system. Reports of declining discipline, reduced independent thinking, and a lack of personal responsibility continue to surface. Developing countries that may want to emulate Japan should consider applying the concepts of e*rgonagy* rather than those of *kyo-iku*.

Finally, the principles of e*rgonagy* are considerate of the coexistence of humankind and nature. Science and technology have advanced rapidly in the twentieth century. Indications are that the pace of change will continue to increase. The rapid advances, while reducing humankind's physical labor, have, in too many instances, had a detrimental effect on the environment. *Ergonagy* seeks to reduce consumption of and wear on the environment by promoting education and training that includes the importance of work that protects the environment. Learning to work in a manner that is beneficial to mankind and nature, and our posterity, is a function of *ergonagy*.

ERGONAGY AS AN INTEGRATED ART AND SCIENCE

As previously stated, e*rgonagy* is the art and science of helping people learn to work. As such it integrates *kyo-iku* and *education*, and *pedagogy* and *andragogy*. The merits of e*rgonagy* with its innate integrative attributes offer significant potential for consistently solving educational problems that are encountered today and those that may appear in the future. *Ergonagy* considers problem solving from a global perspective, while seeking to offer solutions that are locally beneficial and which can be locally implemented. Therefore, comprehensive studies that consider occupational, vocational, and professional education and training from a perspective of *ergonagy* should be pursued. Such studies will result in research-based findings that promote further understanding of human capabilities in preparation for people to be productively and happily engaged in work. Such studies will also assist people in manifesting their capabilities in meaningful ways that support their lives and livelihood. Current thinking seems to foster beliefs that science will solve all problems of humanity by segregating and analyzing them as independent units. However, problems in education cannot be solved in this way. Education does not exist independent of life and must be studied as part of life in its natural settings and in its daily applications. Studies need to be conducted to determine the extent to which ergonagy can be applied, to what extent it can be integrated into other aspects of life, to what extent it promotes a common understanding necessary for global dialogue and research on education and training, and, finally, to what extent it leads to productive and fulfilling work.

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